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Medical liability in the electronic medical records era

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ABSTRACT

Physicians encounter new medical liability risks in a medical milieu subjugated to electronic health information exchange. The budding electronic medical record systems have revolutionized how health care is dispensed. They alter the doctor-patient relationship in many uncertain and evolving ways. The shifting landscape of electronic information and medical liability risk is important for every practicing physician to understand. We review the historical changes of the electronic medical record, the emerging changes of the maturing electronic medical record, and the medical liability risk for physicians using the emerging electronic medical record systems. Because the electronic medical record appears to be here to stay, it is imperative that physicians adapt to efficient and effective use of the electronic information highway.

KEYWORDS Clinical decision support; electronic medical records; health information exchange; medical liability; metadata; standard of care

Physicians, patients, policy gurus, and financiers have observed a health care system evolve into an information technology highway denied a speed limit. The HITECH ACT of 2009 endorsed grants and incentives totaling billions of dollars to stimulate "meaningful use" of electronic medical records (EMRs) by health care professionals.[1] The stimulus for meaningful use featured the benefits, but the potential associated risks were given minimal verbal or penned space. The potential risks associated with the information technology highway include the risk of medical malpractice liability. Our analysis includes only malpractice issues associated with this new and evolving health information highway, focusing on the daily features encountered in the EMR system of documentation of clinical findings, recording of testing and imaging results, computerized health professional order and data entry, and clinical decision support.

PRESENT-DAY PERSPECTIVE

Looking back, we barely survived the initial implementation of the EMR and the medical liability risks of electronic technologies. The medical-legal adversities encountered have included the transition from paper to electronic records, which created documentation breaches, the failure to implement policies and procedures a reasonable and prudent health care professional would implement during the transition to electronic records, the failure to provide ample and sufficient training on the EMR, and lack of surveillance of errors by new electronic system users that inserted incorrect or missing data entries.

In today's health care world, the electronic technologies have become robust and widespread. The EMRs have matured, and almost all health care entities have implemented electronic technologies across all spectra of their clinical practices to enhance health information exchange. This maturation and robust use of the electronic technologies may create an army of new liability risks. The new potential risks include, but are not limited to, the following:

- Clinical decisions are extensively documented, creating more discoverable evidence including metadata.
- The temptation exists to copy and paste patient information and data instead of taking a new history and physical examination. This approach risks missing new or changing information and allows the perpetuation of prior inaccuracies.
- E-mail advice is expanding with meaningful use requiring use of patient portals, where patients and physicians

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exchange e-mail correspondence, multiplying the number of patient encounters manyfold and perhaps leading to increased patient accusations of negligence.
- The increasing telecommunication encounters heighten the liability risk if medical advice is offered without a recorded physical examination and a comprehensive investigation of patient complaints.
- Failure to respond to e-mail in a timely fashion could constitute negligence.
- Information overload may lead to physicians missing important clinical information amid the noise and chaos.
- Physicians departing from clinical decision support guidelines may represent a risk for malpractice liability based on a violation of new standards of care. Better access to clinical information through EMRs may create legal duties to act on the information.
- The widespread use of the health information exchange may increase physician duty to search the extensive data generated by health care providers.
- The failure to adopt and use electronic technologies may establish a deviation from the standard of care.

POTENTIAL BENEFITS AND HAZARDS OF A MATURE EMR

EMRs are thought to have the potential to reduce gaps and errors in medical care. This benefit is expected to reduce adverse events and allegations of negligence. The presumed better documentation of clinical decisions through both clinician-entered data and metadata may improve the ability of physicians to defend against malpractice claims when medical/surgical care was within the standard of care, as could compliance with clinical decision support care guidelines.

EMRs that include integrated clinical decision support systems may improve clinical decisions, thus reducing medical adverse events and the potential for malpractice claims. The goal of clinical decision support systems is to offer a safety net by reminding busy physicians of clinical guidelines so they identify errors before they cause harm.

The secure messaging systems built into EMRs may improve communication with patients, allowing for better understanding of clinically significant information. This may result in patient satisfaction, a higher likelihood of compliance with medical recommendations, and a lower likelihood of allegations of negligence. Advocates for EMRs believe that a rise in health information exchange will lead to better care and better outcomes.

EMRs hold promise for preventing harmful medical errors and attendant medical malpractice claims. They promote comprehensive documentation and timely access to patient data, facilitating precise and accurate medical decision making. The use of electronic technology may decrease transcription errors, improve the speed and accuracy of communication between health care professionals, and reduce the duplication of testing. There is evidence that suggests that EMR systems may improve compliance with clinical guidelines and reduce rates of medication errors.[2]

Despite this optimism surrounding electronic records, there is no current evidence that the use of EMRs reduces diagnostic errors.[3] Additionally, computerized provider entry systems may increase some kinds of medication ordering errors.[4] Gaps between information systems and clinical conditions may cause life-sustaining prescribed medications to be automatically canceled. Information technology systems that default to a hazardous drug dose due to failure to input changes in hepatic or renal function may lead to patient harm if physicians fail to recalculate doses based upon new clinical information.[5] Overdependence on the copying and pasting function of many documentation systems appears to disseminate earlier inaccuracies and oversights.[6]

Secure messaging systems and electronic communications have liability risks. Proposing medical advice without a comprehensive history and physical examination escalates the risk of an inaccurate diagnosis and erroneous treatment decisions. Courts have held that telephone communications between a physician and a patient can be sufficient to establish the doctor-patient relationship necessary for malpractice liability.[7] The inference is that once a doctor-patient relationship is established, a failure to respond in a timely manner to e-mail may constitute a violation of the standard of care.

Since the adoption of EMRs, patients have complained that physicians spend very little time talking to and examining them. The recurrent complaint is that the physician spends most of the office visit time staring at the computer and clicking boxes, instead of maintaining eye contact and lending a compassionate and considerate ear. This has the potential to lead to patient dissatisfaction and allegations of negligence.

The secure messaging systems shape patient perceptions of physicians and their staffs. The American Medical Association has promulgated ethics policies and guidelines on the use of electronic communications in clinical practice.[8] The American Medical Association policy states that physicians should not establish doctor-patient relations through electronic communications but use secure messaging only as a supplement to prior personal encounters. Physicians are encouraged to develop guidelines for appropriate use and turnaround time for electronic communications. These guidelines should be discussed with patients and a contract established that outlines expectations of both parties. Further, physicians should establish a procedure for terminating e-mail relationships with patients who repeatedly violate the rules of appropriate electronic communication. Physicians would be prudent to establish guidelines for e-mail communications and obtain informed consent for the use of secure messaging. Physicians should notify in writing the termination of e-mail privileges.

EMR AND THE LAW

EMRs may affect the progression of malpractice litigation by increasing the availability of documentation with which to defend or prove a malpractice claim. The documentation can be either a shield or a sword. The use of the EMR increases the entry of more extensive notes and includes physician notes, nursing notes, and e-mail communications. EMRs record all electronic transactions from the input of

orders to the time stamps of clinical activity. This metadata provides a permanent electronic footprint that can be used to track physician activity. Under federal law, metadata are discoverable in civil trials, which means that a defendant physician must surrender metadata to the plaintiff's lawyer.[9] State law, which administers most malpractice litigation, varies as to the discoverability and permissibility of metadata.[10] Metadata can be used to validate that the EMR was modified when the treatment was administered, bolstering the defendant's ability to rely on the EMR when defending against a malpractice allegation. Alternatively, if the record was revised at a time incongruous to the treatment, metadata can raise a suspicion of falsification of the medical record, even in the absence of actual wrongdoing. Whereas in the preelectronic era such a practice posed no risk of liability, the availability of metadata is a game changer.

THE STANDARD OF CARE IN AN ELECTRONIC ERA

To prove medical negligence, a plaintiff must establish the applicable standard of care and prove that the defendant caused injury by failing to meet the established standard. The maturation of the EMR may reshape medical liability by shifting the standard of care that is accepted by the medical community, thereby amending the standard used to impose liability.

Clinical decision support systems have the potential to initiate the transformation of present-day standards of care. In malpractice proceedings, each party presents expert testimony to delineate the applicable standard of care. Experts vary in their approach to defining the standard of care. They may rely on their clinical experience and judgment or they may summon clinical practice guidelines. Courts have allowed the use of medical practice guidelines in malpractice proceedings.[11] This raises the potential for a court to admit clinical decision support protocols as evidence of the standard of care if an expert testifies that the clinical decision support reflects reasonable and customary care. The logical inference is that departure from clinical decision support may be evidence of negligence.

Clinical decision support protocols could impact the standard of care; however, these protocols may not anticipate the myriad of clinical scenarios that physicians encounter in clinical practice. Superseding a system default that might be interpreted as a potential standard of care creates an EMR that a physician may need to defend in a court of law. A case in point would be when physician override of the clinical decision support system is required for risk of excessive bleeding safety protocols when aspirin and clopidogrel are used in conjunction after myocardial infarction, where generally the combination of drugs is considered indicated. Reliance by juries and courts on clinical decision support systems may result in increased and potentially incorrect liability when physicians depart from clinical decision support protocols.

The exponential development of health information exchange with access to voluminous outside medical records may also impact the standard of care for practicing physicians. Previously, courts have not held physicians to a legal duty to obtain and review all outside medical records.[12] The easy access through electronic technology makes it likely a court may impose liability for not reviewing pertinent EMR records that would have potentially aborted an adverse outcome.

The important question that surfaces for physicians is whether the medical practice environment will evolve in concert with the information highway, allowing physicians to make use of the voluminous health information available in the electronic medical era. The present-day demanding physician schedule, often allowing only 15 to 20 minutes to take a history, examine a patient, and review the EMR and health exchange information, makes the review of volumes of data unreasonable. The legal standard of care in litigation is meant to reflect reasonable and customary medical care, but the reasonableness of care may differ when viewed from the eyes of the defendant or plaintiff.

MEDICAL MALPRACTICE LAWSUITS FOR EMR ERRORS

EMR-related issues contributed to less than 1% of all claims closed by the malpractice insurer the Doctors Company from January 2007 to June 2014. In that limited sample, 64% involved user errors, and 42% involved issues with the EMR system itself; some of those claims involved more than one contributing factor. Of those overall EMR claims, 10% involved a failure of system design, and 9% involved an electronic systems or technology failure.[13]

CONCLUSION

Physicians can expect a changing landscape of medical liability risks with the adoption of medical electronic systems. Physicians must understand the potential benefits and risks of the EMR for both patient care and physician risk management principles. Additionally, physicians would be prudent to be aware of the EMR changes and associated legal ramifications. Physicians must demand electronic information systems that swing the pendulum back to patient care, with an eye on the patient and a compassionate listening ear.

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